

Moab UMTRA Project Gamma Screening Study and Vicinity Property Meeting

U.S. Department of Energy Office of Environmental Management Grand Junction, Colorado

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What are Vicinity Properties (VPs)?

Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978:

- Authorizes the Secretary of Energy to remediate properties "in the vicinity of" processing sites contaminated with residual radioactive materials derived from such site
 - Residual radioactive material (RRM) is defined as
 - Processed waste from the Moab millsite (e.g., tailings)
 - Does not include unprocessed material (i.e., ore)
 - Main health risks are from long-term exposure to low levels of gamma radiation and radon gas, a by-product of uranium ore processing



VP Project Roles and Responsibilities

- Property Owner
 - Participation completely voluntary
 - Enter into two separate agreements with U.S. Department of Energy (DOE)
 - Allow DOE access for sampling and characterization
 - Allow DOE to remediate and reconstruct property per site-specific design if contamination present



VP Project Roles and Responsibilities (continued)

- DOE
 - Determine whether properties have RRM in excess of cleanup standards
 - If yes, DOE is required under UMTRCA to remediate and reconstruct contaminated properties
 - Provide property owner with documentation that property is remediated to cleanup standards or determination that RRM is not present above cleanup standards



VP Project Roles and Responsibilities (continued)

- NRC
 - Provide regulatory oversight for Moab Project, including VPs
 - Approve documentation that justifies leaving RRM on property (exception basis)



Historical Information on VPs

- By definition, UMTRCA Title I millsite licenses were terminated and, in most cases, abandoned by the owner or operator before reclamation was completed
- In many Title I site communities, the public was encouraged to remove tailings from the processing sites for such uses as pipe bedding, foundation backfill, and gardens
- Moab millsite was never abandoned; operated by private companies and later by the Trustee under NRC license until DOE took control of site in 2001
 - Therefore, DOE expects there to be fewer VPs in Moab than at other UMTRCA Title I sites



Historical Information on VPs (continued)

- Examples of number of vicinity properties remediated by DOE at other sites
 - Durango, Colorado: 129
 - Falls City, Texas: 13
 - Grand Junction, Colorado: 4,087
 - Green River, Utah: 17
 - Gunnison, Colorado: 12
 - Monticello, Utah: 424
 - Moab, Utah: ???
 - Salt Lake City, Utah: 118



1971 EPA Gamma Survey

- In 1971, U.S. Environmental Protection Agency (EPA) performed mobile gamma surveys in approximately 40 communities in western United States
- In Moab, 1,252 structures were surveyed;
 130 structures identified as having "anomalous gamma" readings
- EPA's report made indications, such as "tailings present" or "ore in rock garden"



DOE 2005 Gamma Screening Study

- DOE selected 25 properties to conduct a gamma screening survey from EPA's list of 130 "anomalous gamma" properties
- DOE performing gamma screening surveys to estimate number of potential VPs requiring remediation in Moab for planning and budgeting purposes

- 25 properties consist of
 - 14 properties noted by EPA as "tailings related"
 - 6 properties noted by EPA as "ore related"
 - 5 ore-related businesses, recreation center, and school
- Screening survey will be on exterior of property only; no interior tests for gamma or radon at this time

- Property will be scanned for gamma radiation with a hand-held instrument called a scintillometer
- Will indicate high levels of gamma readings
- Gamma screening survey alone will not allow DOE to determine if radiological contamination present exceeds EPA cleanup standards
 - Additional tests necessary, such as soil sampling and interior radon measurements



- Next steps in gamma screening
 - If interested, owner signs access agreement form and returns form to DOE in the self-addressed, stamped envelope
 - Representative from DOE or S.M. Stoller Corporation (contractor to DOE Grand Junction) will contact you to arrange a time for the screening survey
 - Because only exterior of the property is being surveyed, property owner need not be present (unless pet needs to be restrained)



- Next steps in gamma screening
 - Gamma scan ranges from survey will be plotted on property maps
 - Owners will be provided the gamma scan map for their property after it is completed



DOE Moab VP Project

- Following the gamma screening study DOE will
 - Perform inclusion/exclusion surveys on the 25 initial properties (will determine if contamination exceeds EPA standards or not) – early fiscal year 2006
 - Perform inclusion/exclusion surveys on the remaining properties on EPA list – fiscal year 2006
 - Perform inclusion/exclusion surveys as requested by property owners within VP boundary shown in Draft Environmental Impact Statement – fiscal year 2007
 - Perform remedial action on properties included (contamination exceeds standards and RRM is present) – fiscal years 2006 – 2010



Vicinity Property Project Boundary

